Chains: Sensitive links in production

Hardly any production systems manage to do without chains – they drive machinery, convey components or control tools, often in continuous operation and under tough conditions. In this connection their condition has an enormous impact on productivity: Wear or elongation of chains lead to a loss in precision and reduced production quality. The result is unplanned maintenance. In the worst case the chain breaks, with a plant downtime as the consequence. Both mean additional costs – this needs preventing in advance.

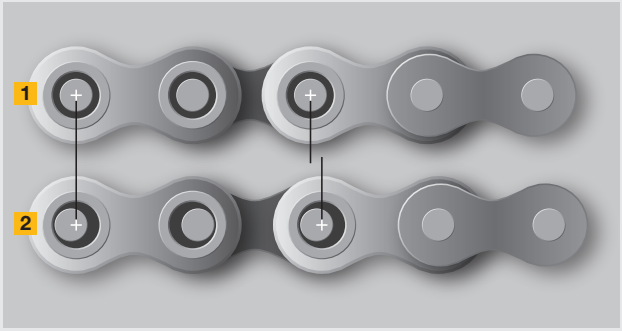

Illustration showing a chain without load (1) and a chain under load (2). The pins rest against the sleeves.

Your benefits with Chain Condition Monitoring

- **Better maintenance management** through timely planning
- **Higher production quality** through immediate notification when tolerances are exceeded
- **Shorter holding times:** Reduced risk of downtimes and unplanned maintenance
- **Higher productivity,** if production downtimes can be avoided
- **High delivery reliability and customer satisfaction** without production and supply chain interruptions
- **Predictive maintenance:** Early detection of chain wear

Keep a constant eye on your chains – increase your productivity

Would you like more information about the use of **Chain Condition Monitoring** and other digital solutions for greater efficiency in your production? Then please talk with our experts!

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KLÜBER LUBRICATION

your global specialist

Detect wear, take timely action.

Chain Condition Monitoring for predictive maintenance of chains

Chain Condition Monitoring – the complete solution for more control and productivity

Continuous monitoring prevents downtimes

The Chain Condition Monitoring system monitors chains even where they cannot be accessed. Therefore, the expertise of Klüber Lubrication in the fields of speciality lubricants, digital solutions for lubricant management and the know-how in chain design, machine construction and sensor technology of iwis complement each other to perfection. The Chain Condition Monitoring system informs plant operators and maintenance managers about the condition of their chains and provides warnings about critical events or the reaching of threshold values. This means that maintenance work can be planned in a timely manner and downtimes effectively reduced.

Perfect integration in the EfficiencyManager

The ready-to-use Chain Condition Monitoring solution monitors chains using intelligent sensors. It enables the data to be evaluated directly in the EfficiencyManager, the software solution for maintenance measures from Klüber Lubrication. Rules and threshold values are defined there which are used by the solution to trigger notifications about the condition of the chains.

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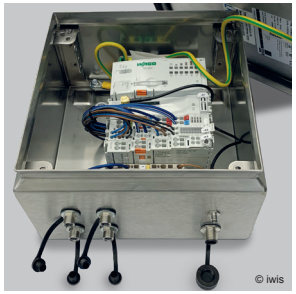
How the Chain Condition Monitoring system works

Visualisations and notifications
The sensor for the **Chain Condition Monitoring** system is mounted on the chain. In a robust housing with IP67 protection, it monitors the chain elongation of the complete chain and the individual links, among other things, as well as the temperature and speed of the chain and its vibrations on the sensor. All these factors enable conclusions to be drawn about the condition of the chain.

Evaluation in the cloud
The information from up to four chain sensors is collected and encrypted and transferred in anonymised form to a cloud solution, where the data are analysed and interpreted.



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Visualisations and notifications
The information on the condition of the chains is displayed and visualised live in the Efficiency Manager. Users can define threshold values for notifications here and use them as the basis for planning maintenance measures accordingly. It also provides them with access to historical measured values. By comparing them with actual data, changes in chain condition can be detected as early as possible.